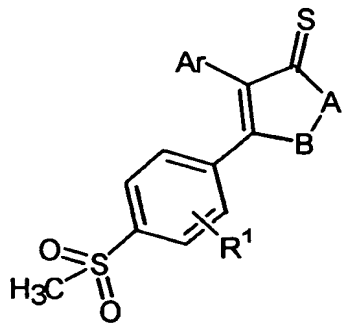**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

<u>What is claimed is:</u>

1. (Original) A thione derivative represented by formula 1:

Formula 1



wherein:

A and B each independently represent O, S, $NR^2$; wherein $R^2$ represents hydrogen, $C_1$-$C_4$ alkyl, $C_1$-$C_4$ alkenyl, or aryl;

Ar represents aryl; heteroaryl; aryl or heteroaryl substituted with one to five radicals independently selected from the group consisting of $C_1$-$C_4$ alkyl, $C_1$-$C_4$ alkoxy, halogen, trifluoromethyl, nitro, acetoxy, amino, $C_1$-$C_3$ alkylamino, $C_1$-$C_3$ dialkylamino, hydroxy, $C_1$-$C_3$ hydroxyalkyl, and thioxy; and

$R^1$ represents hydrogen, $C_1$-$C_4$ alkyl, $C_1$-$C_4$ alkoxy, halogen, cyano, nitro, hydroxy, amino, $C_1$-$C_4$ alkylamino, or $C_1$-$C_4$ dialkylamino;
or a non-toxic salt thereof.


2. (Original) The thione derivative according to claim 1 wherein

A and B each independently represent S or NH;

Ar represents phenyl; phenyl substituted with one to five radicals independently selected from the group consisting of $C_1$-$C_4$ alkyl, $C_1$-$C_4$ alkoxy, halogen, trifluoromethyl, acetoxy, and nitro; pyridyl; or naphthyl;
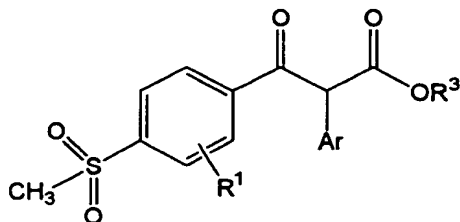
$R^1$ represents hydrogen or halogen;
or a non-toxic salt thereof.

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3. (Currently Amended) The thione derivative according to claim 1-or-claim-2, which is selected from the group consisting of:

4-(4-ethoxyphenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

4-(4-bromophenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-toryl-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-phenyl-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-methoxyphenyl-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-(2-trifluoromethylphenyl)-[1,2]dithiol-3-thione;

4-(4-chlorophenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

4-(3,4-dichlorophenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-pyridine-4-yl-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-pyridine-3-yl-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-pyridine-2-yl-[1,2]dithiol-3-thione;

4-(4-fluorophenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

4-(2,5-dimethoxyphenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

4-(3,5-dimethylphenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-(3-methoxyphenyl)-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-(2-nitrophenyl)-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-(3-trifluoromethylphenyl)-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-o-toryl-[1,2]dithiol-3-thione;

4-(2-chlorophenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

4-(2,4-dichlorophenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

4-(2-chloro-4-fluorophenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

4-(3,4-dimethoxyphenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

4-(2-bromophenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

4-(2-fluorophenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

4-(2,4-difluorophenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

4-(3,4-difluorophenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-naphthalene-2-yl-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-pentafluorophenyl-[1,2]dithiol-3-thione;

4-(4-isopropoxylphenyl)-5-(4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

5-(4-methanesulfonylphenyl)-4-(4-propoxyphenyl)-[1,2]dithiol-3-thione;

acetic acid 4-[5-(4-methanesulfonylphenyl)-3-thioxo-3H-[1,2]dithiol -4-yl]phenyl ester;

5-(2-chloro-4-methanesulfonylphenyl)-4-(4-ethoxyphenyl)-[1,2]dithiol-3-thione;

5-(2-chloro-4-methanesulfonylphenyl)-4-*p*-toryl-[1,2]dithiol-3-thione;

4-(4-bromophenyl)-5-(2-chloro-4-methanesulfonylphenyl)-[1,2]dithiol-3-thione;

5-(2-chloro-4-methanesulfonylphenyl)-4-(4-methoxyphenyl)-[1,2]dithiol-3-thione:

5-(3-fluoro-4-methanesulfonylphenyl)-4-p-toryl-[1,2]dithiol-3-thione;

5-(3-fluoro-4-methanesulfonylphenyl)-4-(4-methoxyphenyl)-[1,2]dithiol-3-thione;

acetic acid 4-[5-(3-fluoro-4-methanesulfonylphenyl)-3-thioxo-3H- [1,2]dithiol-4-yl]-phenyl ester;

5-(4-methanesulfonylphenyl)-4-*p*-toryl-1,2-dihydropyrazole-3-thione;

4-(3,4-dichlorophenyl)-5-(4-methanesulfonylphenyl)-1,2-dihydropyrazole-3-thione; and

4-(4-chlorophenyl)-5-(4-methanesulfonylphenyl)-1,2-dihydropyrazole-3-thione
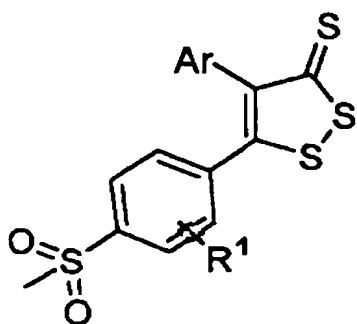
or a non-toxic salt thereof.


4. (Original) A propionic acid derivative represented by formula 2:
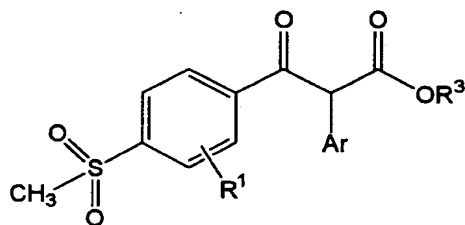Formula 2



wherein, $R^1$ and Ar are as defined in claim 1 and $R^3$ represents $C_1$-$C_4$ alkyl.

5. (Original) A method for preparing a thione derivative of formula 1a or a non-toxic salt thereof, comprising reacting a propionic acid derivative of formula 2 with phosphorus pentasulfide, Lawesson's Reagent, beta-oxothioctic acid, or potassium beta-oxothioctate:
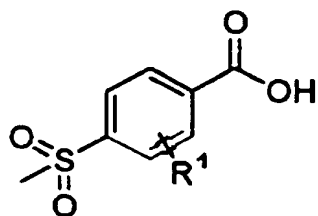
Formula 1a



Formula 2
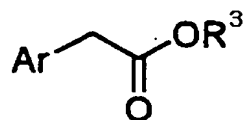


wherein:
R$^1$ and Ar are as defined in claim 1;
R$^3$ represents C$_1$-C$_3$ alkyl.

6. (Original) A method according to claim 5, wherein the propionic acid derivative of formula 2 is prepared by reacting a methanesulfonylbenzoic acid derivative of formula 3 with an aryl acetate derivative of formula 4 in the presence of a base;
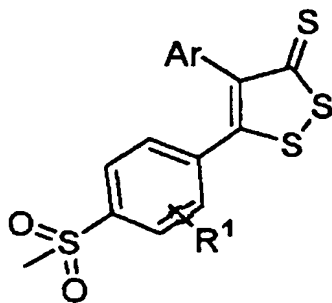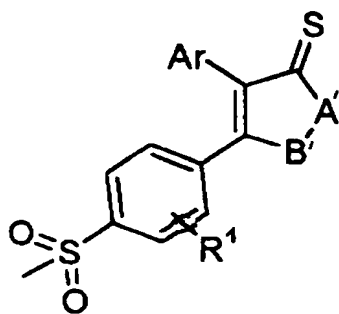
Formula 3



Formula 4



wherein:

$R^1$ and Ar are as defined in claim 1 and $R^3$ represents $C_1$-$C_4$ alkyl.

7. (Original) A method for preparing a thione derivative of formula 1b or a non-toxic salt thereof, comprising reacting a thione derivative of formula 1a with $NHR^2NH$ $R^2$ or $NH$ $R^2OH$ in the presence of a base;

Formula 1a

Formula 1b



wherein:

A' and B' each independently represent S or NR$^2$, provided that A' and B' are not simultaneously S; and

Ar and R$^2$ are as defined in claim 1.


8. (Currently Amended) A pharmaceutical composition comprising a therapeutically effective amount of a thione derivative or a non-toxic salt thereof according to claim 1 ~~to claim 3~~ as an active ingredient and a pharmaceutically acceptable carrier for the treatment of fever, pain, and inflammation.